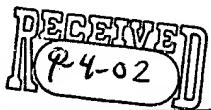


Application No. 09/322,283



TRW Docket No. 12-0895

## 12. (Amended) An optical system comprising:

an optical transmitter, said optical transmitter including an optical modulator for modulating an RF input signal onto an optical carrier signal having multiple wavelengths and defining an RF modulated optical signal;

an optical receiver for demodulating said RF modulated optical signal and providing an RF output signal; and

an optical link connecting said optical transmitter and said optical receiver, wherein said optical link is in free space.

## 13. (Amended) An optical system comprising:

an optical transmitter, said optical transmitter including an optical modulator for modulating an RF input signal onto an optical carrier signal having multiple wavelengths and defining an RF modulated optical signal;

an optical receiver for demodulating said RF modulated optical signal and providing an RF output signal; and

an optical link connecting said optical transmitter and said optical receiver, wherein said optical modulator is a Mach-Zehnder modulator having an RF input port, a bias voltage input port, an optical carrier input port, and an optical output port.

16. (Amended) The optical system as recited in claim 15, wherein said bias control circuit includes a wavelength division multiplexer (WDM), a summing junction and a pair of photodetectors.

17. (Amended) The optical system as recited in claim 16, wherein said WDM, said summing junction and said pair of photodetectors are coupled to said input port of said Mach-Zehnder modulator.